

Notice of Allowability

Application No.

10/706,043

Examiner

Alexander O. Williams

Applicant(s)

KAJITA ET AL.

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 11/29/05.
2. ☒ The allowed claim(s) is/are 1, 2, 5, and 7-9; renumbered 1, 2, 3 and 4-6 respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

ALEXANDER O. WILLIAMS
PRIMARY EXAMINER

Ali. 2626

Art Unit: 2826

Serial Number: 10/706043 Attorney's Docket #: 24533US2S

Filing Date: 11/13/2003; claimed foreign priority to 7/30/2003

Applicant: Kajita et al.

Examiner: Alexander Williams

Applicant's Amendment filed 11/29/05 to the election of the species of figures 1 to 7 (claims 1 to 9), filed 12/13/04, has been acknowledged.

This application contains claims 10 to 19 drawn to an invention non-elected without traverse. A complete response to the final rejection must include cancellation of non-elected claims or other appropriate action (see 37 CFR § 1.144 & MPEP § 821.01).

Claims 1, 2, 5 and 7 to 9 are allowable over the prior art of record.

Claims 3, 4 and 6 have been cancelled.

Part III EXAMINER'S AMENDMENT

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

2. The application has been amended as follows:
Cancel non-elected without traverse claims 10 to 19.

REASON FOR ALLOWANCE

3. The following is an Examiner's Statement of Reasons for Allowance:

As to independent claim 1, the prior art of record fails to show the combination recited in any of the claims. In particular, the prior art of record fails to show or collectively teach a semiconductor device comprising: a semiconductor substrate; an active element structure formed on the semiconductor substrate, and having a connection region formed in the surface of the semiconductor substrate; a first insulating film provided on the semiconductor substrate; a contact hole extending from a surface of the first insulating film to the connection region; a contact plug provided in the contact hole; a buried conductive film filled in a clearance formed in the contact plug,

consisting of a material different from the contact plug, having a continuous surface without forming a step with the surface of the contact plug, and having a first width in the surface of the buried conductive film and a second width larger than the first width in a deeper position than the surface of the buried conductive film; and a first intervention conductive film interposed between the inner surface of the contact hole and the contact plug, the first intervention conductive film and the buried conductive film consisting substantially of the same material. Applicant's arguments provide reasons for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Field of Search	Date
U.S. Class and subclass: 257/758,774,773,758,301,505,303,748,304,762,764,767, 766	3/11/05 8/25/05 12/7/05
Other Documentation: foreign patents and literature in 257/758,774,773,758,301,505,303,748,304,762,764,767, 766	3/11/05 8/25/05 12/7/05
Electronic data base(s): U.S. Patents EAST	3/11/05 12/7/05

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O. Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander O Williams
Primary Examiner
Art Unit 2826

AOW
12/7/05